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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,870	10/28/2003	Michel Declos	683-B01.US	4107
7590 01/08/2008				
Michel Declos c/o PROTECTIONS EQUINOX INT'L INC. Suite 224 4480, Cote-de-Liesse Montreal, QC H4N 2R1 CANADA				
		EXAMINER GRAVINI, STEPHEN MICHAEL		
		ART UNIT PAPER NUMBER 3749		
		MAIL DATE DELIVERY MODE 01/08/2008 PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/693,870

Applicant(s)

DECLOS, MICHEL

Examiner

Stephen Gravini

Art Unit

3749

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Parker (US 4,095,349). The claims are reasonably and broadly construed, in light of the accompanying specification, as being disclosed by Parker for comprising:

a heat exchanger core portion **30** that includes a hot air passageway **22** connected to a tumble dryer exhaust **18** for receiving a volume of hot humid air and having a first heat exchange area **U**, and an ambient air passageway **34** having an inlet opening for receiving a volume of ambient air and having a second heat exchange area **Y** in contact with the first heat exchange area and generally orthogonal relative thereto (please see figure 2), the ambient air being drawn into the second heat exchange area of the ambient air passageway and heated by the hot air moving in the first heat exchange area;

the hot air passageway and the ambient air passageway being disposed in the heat exchanger core portion that is sufficiently narrow to fit into a limited area surrounding the tumble dryer as shown in figure 1. Parker also discloses the claimed features of the first heat exchange area and the second heat exchange area are sandwiched between a first sidewall and a second sidewall, the first sidewall being

disposed towards the tumble dryer and the second sidewall being disposed away from the tumble dryer as shown in figure 2, the first heat exchange area includes a plurality of hot air channels and the second heat exchange area includes a plurality of ambient air channels as shown in figure 4, the hot air channels are sandwiched between alternate ambient air channels and are in intimate contact therewith along a substantial portion of the first and second heat exchange areas as shown in figure 6, each of the ambient air channels include a pair of spaced apart channel sidewalls and a spacer web disposed therebetween to subdivide the ambient air channels into a plurality of ambient air sub-channels as shown in figure 3, the heat exchanger core portion includes an inner sidewall and an outer sidewall, one ambient air channel being sealingly connected to an inwardly facing sidewall surface of each of the inner and outer sidewalls as shown in figure 4, the ambient air passageway further includes a room heater 46 outlet located downstream from the inlet opening, the inlet opening includes a front upper intersection located at a front first corner of an upper core portion and a front lower intersection located at a front second corner of a lower core portion and the room heater outlet includes a rear upper intersection located at a rear first corner of the upper core portion and a rear lower intersection located at a rear second corner of the lower core portion at column 4 lines 9-50, room heater conduit as shown in figure 2, generally rectangular shape and fan also shown in figure 2.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 10-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parker in view of Castonguay (US 5,117,563) Parker discloses the claimed invention, as rejected above, except for the claimed features including ambient air channels and the hot air channels are sealed into a sealing compound that extends across each of the upper and lower intersections in which a first airtight seal is located at a front portion of each of the hot air channels, the first airtight seal extending between the front upper and lower intersections in which a second airtight seal is located at a rear portion of each of the hot air channels, the second airtight seal extending between the rear upper and lower intersections, in which the first and second airtight seals are a plurality of spacer pads that are positioned generally orthogonal to the spacer webs, and in which the spacer pads and the spacer webs are each sealingly connected to the front and rear intersections. Castonguay, another heat exchange apparatus, discloses those features at column 2 lines 21-45. It would have been obvious to those skilled in the art to combine the teachings of Parker with the seal chamber features disclosed in

Castonguay, for the purpose of optimizing airflow in a heat exchange system such that no inefficient energy losses occur, such as those in a non-sealed arrangement.

Claims 17-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parker in view of Castonguay in further view of Brisco (US 4,034,482). Parker in view of Castonguay discloses the claimed invention, as rejected above, except for the claimed features including tapered chimney is removably connected to a hot air passageway outlet located downstream from the tumble dryer exhaust, in which the tapered chimney, when in use, is sealingly mounted on the upper edges of the upper core portion. Brisco, another heat exchange apparatus, discloses those features at column 2 line 60 through column 3 line 8. It would have been obvious to those skilled in the art to combine the teachings of Parker with the chimney features disclosed in Brisco, for the purpose of optimizing airflow in a heat exchange system such that no undesired airflow occurs, such as those in a non-chimney arrangement. Furthermore, Parker in view of Castonguay in view of Brisco discloses the claimed invention, except for the claimed tapered chimney shape, double the length of the ambient air channels, rectangular structure, and heat exchanger core portion is removable. It would have been an obvious matter of design choice to recite the claimed taper, double length, rectangular shape, or core removability, since the prior art would achieve the claimed invention, regardless of the precise claim limitations.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen Gravini whose telephone number is 571 272

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4875. The examiner can normally be reached on normal weekday business hours (east coast time).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven B. McAllister can be reached on 571 272 6785. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SMG  
January 3, 2008

/Stephen Gravini/